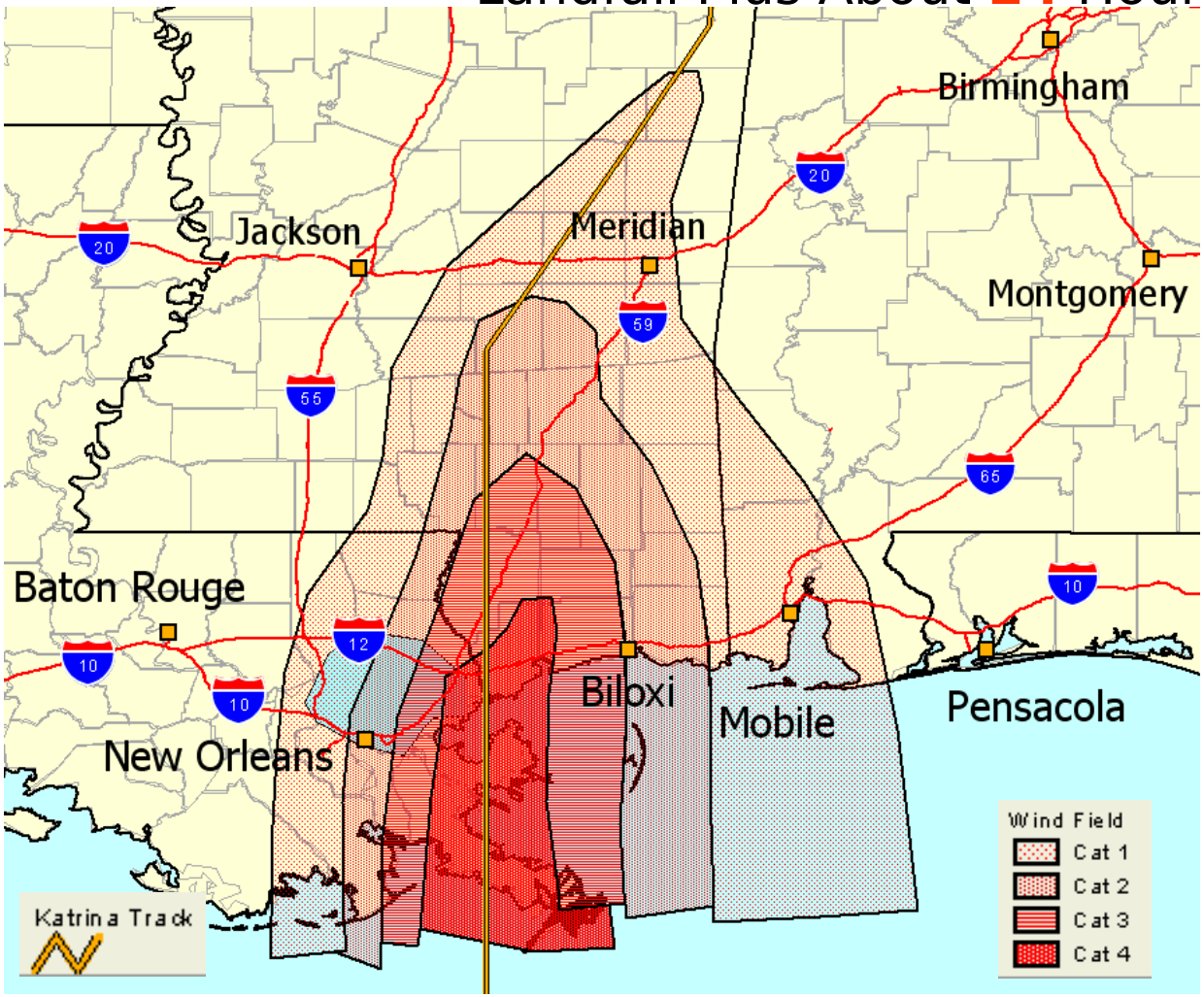
Hurricane Katrina Wind Distribution

Landfall Plus About 24 Hours

For Official Use Only!



Most Probable Landfall Wind Distribution

This model is based on a Category 4 storm making landfall in near proximity to New Orleans, LA.

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Wind Fields

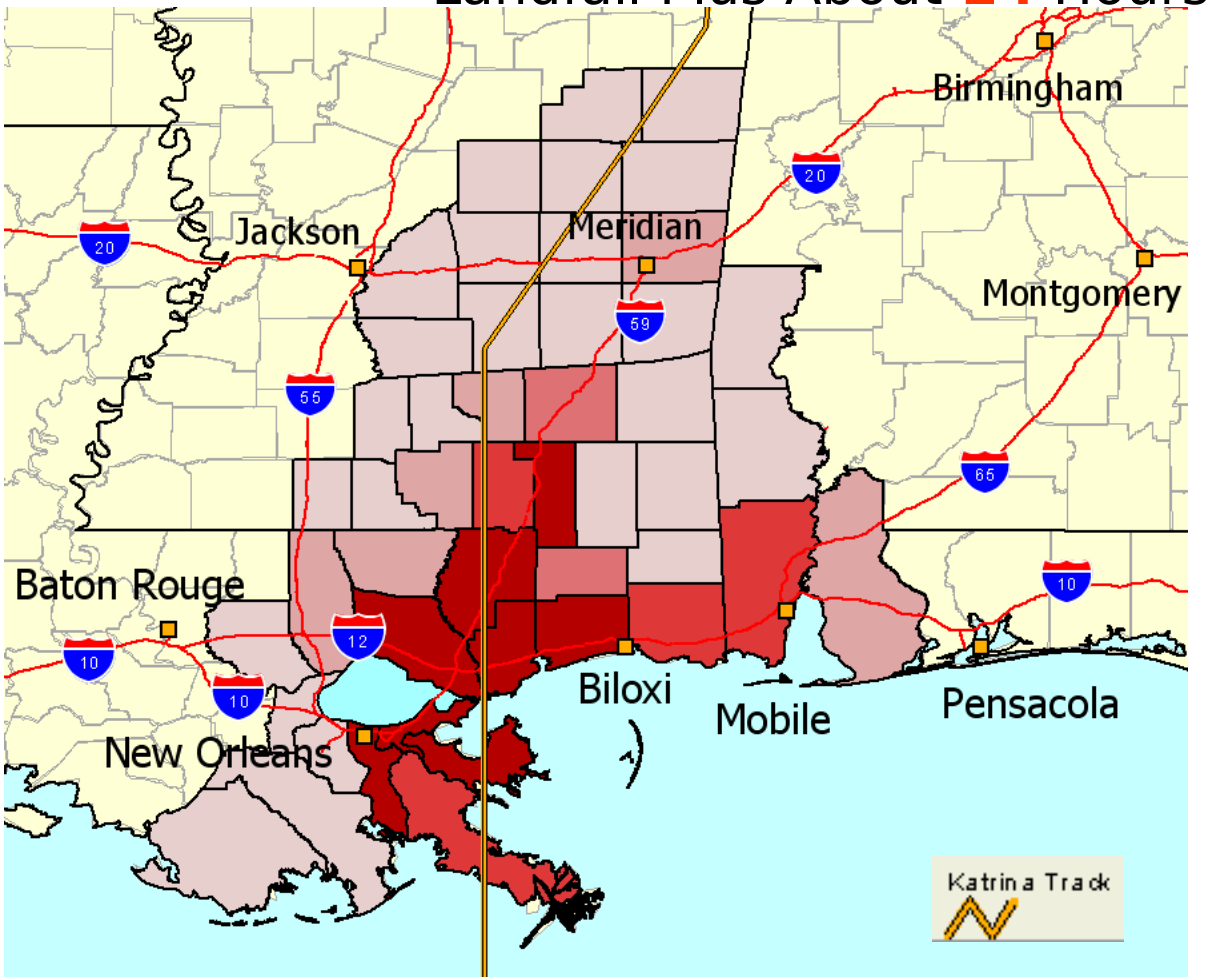
Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Debris Model

Landfall Plus About 24 Hours

For Official Use Only!



Most Probable Landfall Debris Model Results

Louisiana – 19,136,000 yd^3
Mississippi – 12,800,000 yd^3
Alabama – 1,162,000 yd^3

Model results per parish/county on following page

This model is based on a Category 4 storm making landfall in near proximity to New

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Debris Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Debris Model

Landfall Plus About 24 Hours

For Official Use Only!

State	Parish	Yards Per Parish
	Jefferson	5,059,000
	Lafourche	95,000
	Livingston	5,000
	Orleans	7,567,000
	Plaquemines	770,000
	St Bernard	1,871,000
	St Charles	94,000
	St John Baptist	65,000
	St Tammany	3,295,000
	Tangipahoa	116,000
	Terrebonne	19,000
	Washington	180,000
Louisiana		**19,136,000**

State	County	Yards Per County
	Baldwin	190,000
	Choctaw	1,000
	Mobile	955,000
	Washington	16,000
Alabama		**1,162,000**

State	County	Yards Per County
	Clarke	25,000
	Covington	111,000
	Forrest	1,063,000
	George	86,000
	Greene	33,000
	Hancock	2,341,000
	Harrison	4,951,000
	Jackson	994,000
	Jasper	75,000
	Jeff'n Davis	36,000
	Jones	353,000
	Kemper	9,000
	Lamar	700,000
	Lauderdale	104,000
	Lawrence	9,000
	Leake	4,000
	Marion	126,000
	Neshoba	41,000
	Newton	35,000
	Noxubee	11,000
	Pearl River	1,112,000
	Perry	87,000
	Pike	1,000
	Rankin	8,000
	Scott	37,000
	Simpson	39,000
	Smith	80,000
	Stone	268,000
	Walthall	20,000
	Wayne	35,000
	Winston	6,000
Mississippi		**12,800,000**

The amount of debris forecasted is possible total volume, not necessarily the volume that may need to be removed with Federal funds.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Debris Model

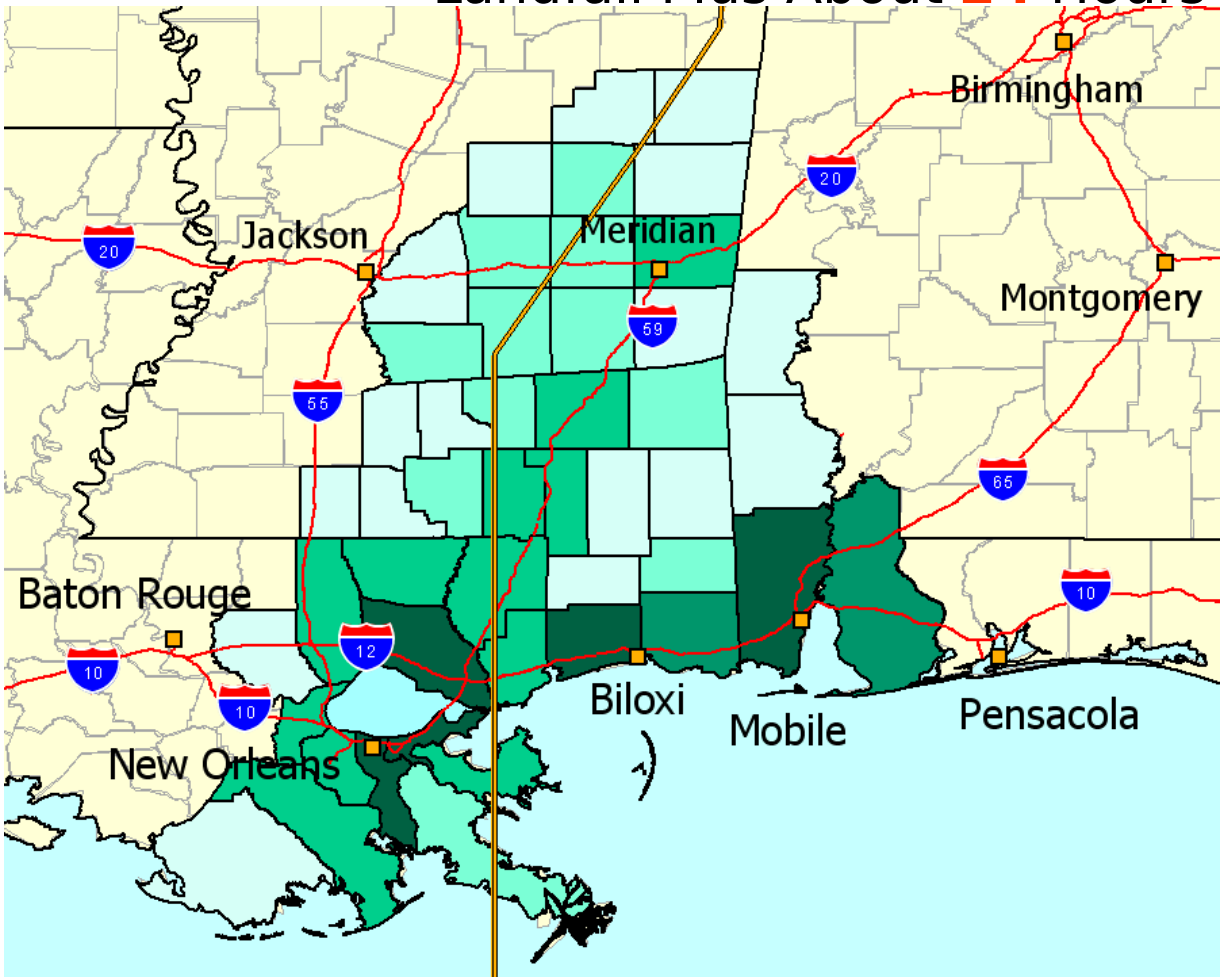
Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Ice Model

Landfall Plus About 24 Hours

For Official Use Only!



Most Probable Landfall Ice Model Results

Louisiana –
29 Truckloads Day One
59 Truckloads Day Two
117 Truckloads Day Three

Mississippi –
24 Truckloads Day One
48 Truckloads Day Two
95 Truckloads Day Three

Alabama –
11 Truckloads Day One
21 Truckloads Day Two
42 Truckloads Day Three

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per day per person) and Ice SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Ice Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Ice Model

Landfall Plus About **24** Hours

For Official Use Only!

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Jefferson	1,343,000	9	17	34
	Lafourche	123,000	1	2	4
	Livingston	9,000	0	1	1
	Orleans	1,471,000	9	19	37
	Plaquemines	71,000	1	1	2
	St Bernard	212,000	2	3	6
	St Charles	151,000	1	2	4
	St John Baptist	126,000	1	2	4
	St Tammany	565,000	4	8	15
	Tangipahoa	228,000	2	3	6
	Terrebonne	33,000	0	1	1
	Washington	119,000	1	2	3
Louisiana			**29**	**59**	**117**

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Baldwin	307,000	2	4	8
	Choctaw	1,000	0	1	1
	Mobile	1,280,000	8	16	32
	Washington	32,000	0	1	1
Alabama			**11**	**21**	**42**

The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per person) and Ice SME input and represents a first day daily need. The assumption in this scenario is that 40% of the resident population affected by Katrina will have power outage in this area will cause a need for ice.

Details about this model may be obtained at

https://englink.usace.army.mil

or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Ice Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Ice Model

Landfall Plus About **24** Hours

For Official Use Only!

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Clarke	48,000	1	1	2
	Covington	62,000	1	1	2
	Forrest	232,000	2	3	6
	George	60,000	1	1	2
	Greene	42,000	1	1	2
	Hancock	137,000	1	2	4
	Harrison	602,000	4	8	16
	Jackson	430,000	3	6	11
	Jasper	58,000	1	1	2
	Jeff'n Davis	45,000	1	1	2
	Jones	208,000	2	3	6
	Kemper	17,000	0	1	1
	Lamar	125,000	1	2	4
	Lauderdale	174,000	1	3	5
	Lawrence	17,000	0	1	1
	Leake	8,000	0	1	1
	Marion	82,000	1	2	3
	Neshoba	82,000	1	2	3
	Newton	70,000	1	1	2
	Noxubee	22,000	0	1	1
	Pearl River	156,000	1	2	4
	Perry	39,000	0	1	1
	Pike	1,000	0	1	1
	Rankin	17,000	0	1	1
	Scott	78,000	1	1	2
	Simpson	70,000	1	1	2
	Smith	52,000	1	1	2
	Stone	44,000	1	1	2
	Walthall	36,000	0	1	1
	Wayne	67,000	1	1	2
	Winston	12,000	0	1	1
Mississippi			**24**	**48**	**95**

The amount of ice forecasted is based on Mission Guide Book requirements (8 pounds per person) and Ice SME input and represents a first day daily need. The assumption in this scenario is that 40% of the resident population affected by Katrina will have power outage in this area will cause a need for ice.

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or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Ice Model

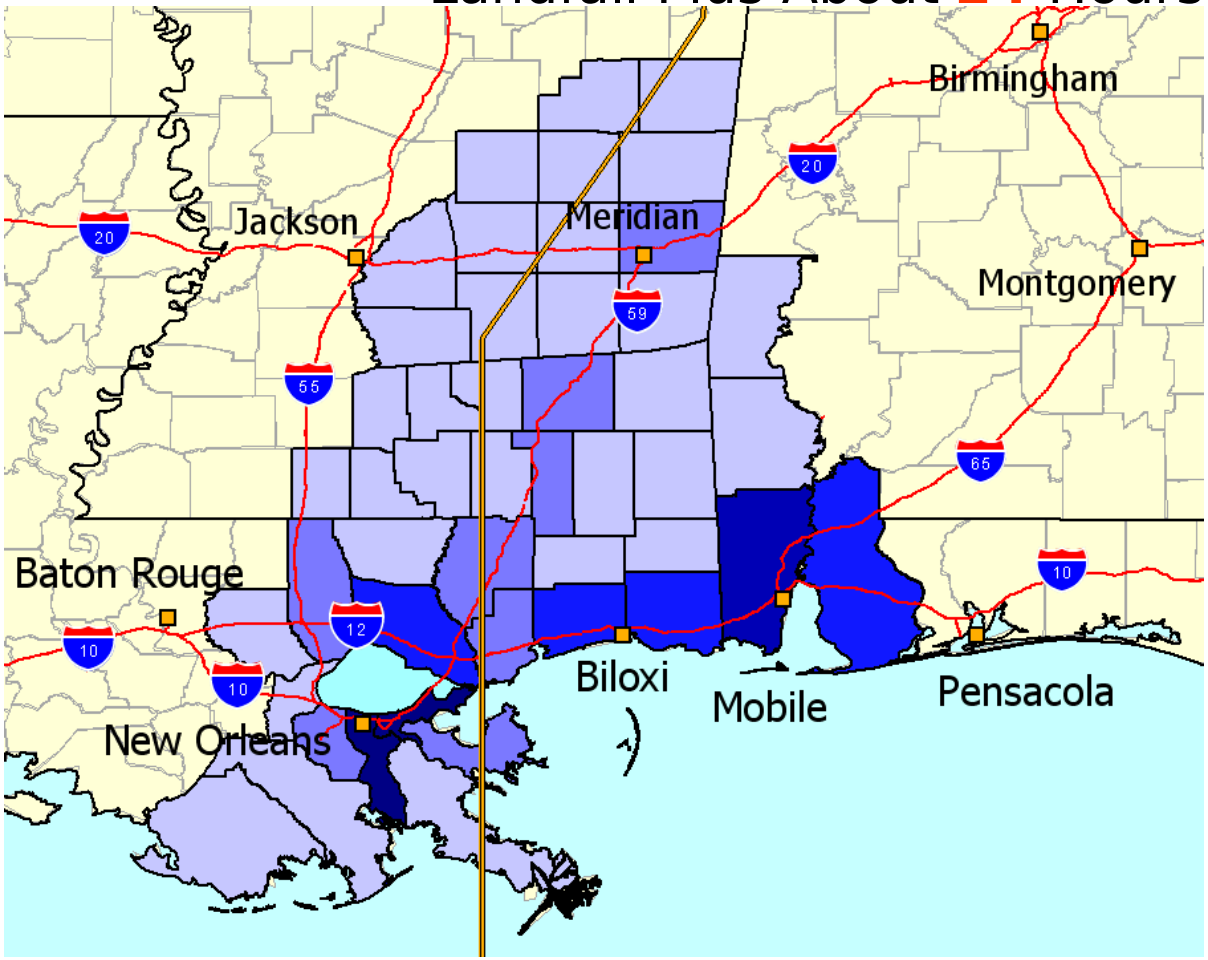
Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Water Model

Landfall Plus About **24** Hours

For Official Use Only!



Most Probable Landfall Water Model Results

Louisiana –
29 Truckloads Day One
59 Truckloads Day Two
117 Truckloads Day Three

Mississippi –
24 Truckloads Day One
48 Truckloads Day Two
95 Truckloads Day Three

Alabama –
11 Truckloads Day One
21 Truckloads Day Two
42 Truckloads Day Three

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person per day) and Water SME input and represents a first day daily need.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Water Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Water Model

Landfall Plus About **24** Hours

For Official Use Only!

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Jefferson	504,000	9	17	34
	Lafourche	46,000	1	2	4
	Livingston	4,000	0	1	1
	Orleans	552,000	9	19	37
	Plaquemines	27,000	1	1	2
	St Bernard	79,000	2	3	6
	St Charles	57,000	1	2	4
	St John Baptist	47,000	1	2	4
	St Tammany	212,000	4	8	15
	Tangipahoa	85,000	2	3	6
	Terrebonne	12,000	0	1	1
	Washington	45,000	1	2	3
Louisiana			**29**	**59**	**117**

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Baldwin	115,000	2	4	8
	Choctaw	1,000	0	1	1
	Mobile	480,000	8	16	32
	Washington	12,000	0	1	1
Alabama			**11**	**21**	**42**

The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person) and Water SME input and represents a first day daily need. The assumption in this scenario is that 40% of the resident population affected by Katrina will have power outage in this area will cause a need for water.

Details about this model may be obtained at **https://englink.usace.army.mil** or contact ENGLink at 1-877-936-4546

Hurricane Katrina Water Model

Landfall Plus About **24** Hours

For Official Use Only!

State	County	Pounds Per County-Day 3	Day 1 Trucks	Day 2 Trucks	Day 3 trucks
	Clarke	18,000	1	1	2
	Covington	23,000	1	1	2
	Forrest	87,000	2	3	6
	George	23,000	1	1	2
	Greene	16,000	1	1	2
	Hancock	52,000	1	2	4
	Harrison	226,000	4	8	16
	Jackson	161,000	3	6	11
	Jasper	22,000	1	1	2
	Jeff'n Davis	17,000	1	1	2
	Jones	78,000	2	3	6
	Kemper	6,000	0	1	1
	Lamar	47,000	1	2	4
	Lauderdale	65,000	1	3	5
	Lawrence	6,000	0	1	1
	Leake	3,000	0	1	1
	Marion	31,000	1	2	3
	Neshoba	31,000	1	2	3
	Newton	26,000	1	1	2
	Noxubee	8,000	0	1	1
	Pearl River	58,000	1	2	4
	Perry	15,000	0	1	1
	Pike	1,000	0	1	1
	Rankin	6,000	0	1	1
	Scott	29,000	1	1	2
	Simpson	26,000	1	1	2
	Smith	19,000	1	1	2
	Stone	16,000	1	1	2
	Walthall	13,000	0	1	1
	Wayne	25,000	1	1	2
	Winston	5,000	0	1	1
Mississippi			**24**	**48**	**95**

The amount of water forecasted is based on Mission Guide Book requirements (3 liters per person) and Water SME input and represents a first day daily need. The assumption in this scenario is that 40% of the resident population affected by Katrina will have power outage in this area will cause a need for water.

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US Army Corps of Engineers

Hurricane Katrina Water Model

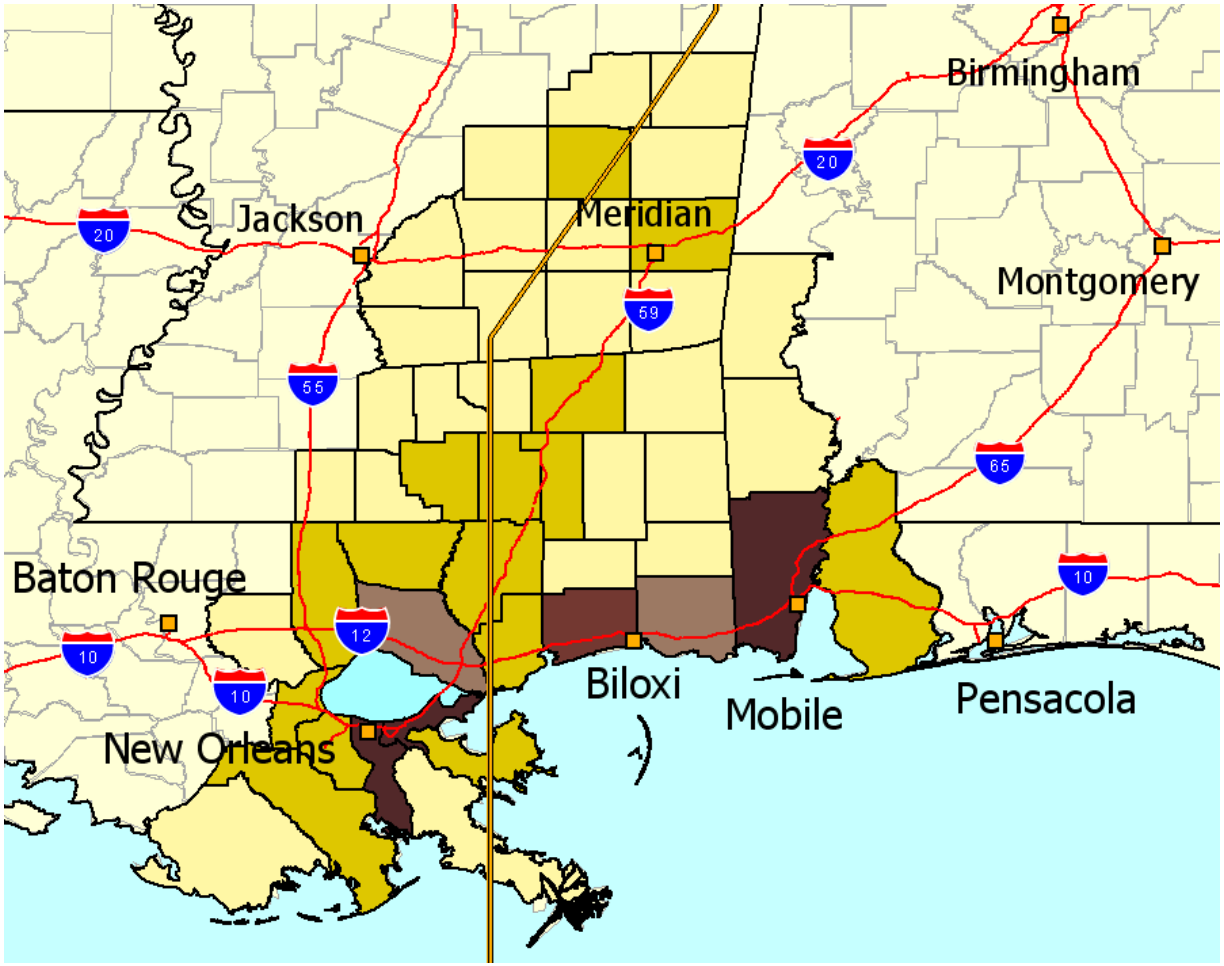
Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Population Model

Landfall Plus About **24** Hours

For Official Use Only!



Most Probable Landfall Population Model Results

Louisiana – 1,392,000 persons
Mississippi – 966,000 persons
Alabama – 507,000 persons

Model results per county on following page

This model is based on a Category 4 storm making landfall in near proximity to New Orleans, LA

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The number of persons included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers **Hurricane Katrina Population Model**	
Generated By: Terry Siemsen, LRL 0700 EDT 08/30/2005	
Sources: HURREVAC LRL-DEBRIS	Page 10 of 17

Hurricane Katrina Population Model

Landfall Plus About 24 Hours

For Official Use Only!

State	Parish	Population per Parish
	Jefferson	420,000
	Lafourche	38,000
	Livingston	3,000
	Orleans	460,000
	Plaquemines	22,000
	St Bernard	66,000
	St Charles	47,000
	St John Baptist	39,000
	St Tammany	175,000
	Tangipahoa	71,000
	Terrebonne	10,000
	Washington	41,000
Louisiana		**1,392,000**

State	County	Population per County
	Baldwin	96,000
	Choctaw	1,000
	Mobile	400,000
	Washington	10,000
Alabama		**507,000**

State	County	Population per County
	Clarke	15,000
	Covington	19,000
	Forrest	72,000
	George	19,000
	Greene	13,000
	Hancock	43,000
	Harrison	188,000
	Jackson	134,000
	Jasper	18,000
	Jeff'n Davis	14,000
	Jones	65,000
	Kemper	5,000
	Lamar	39,000
	Lauderdale	55,000
	Lawrence	5,000
	Leake	2,000
	Marion	26,000
	Neshoba	26,000
	Newton	22,000
	Noxubee	7,000
	Pearl River	49,000
	Perry	12,000
	Pike	1,000
	Rankin	5,000
	Scott	24,000
	Simpson	22,000
	Smith	16,000
	Stone	14,000
	Walthall	11,000
	Wayne	21,000
	Winston	4,000
Mississippi		**966,000**

The number of persons estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Population Model

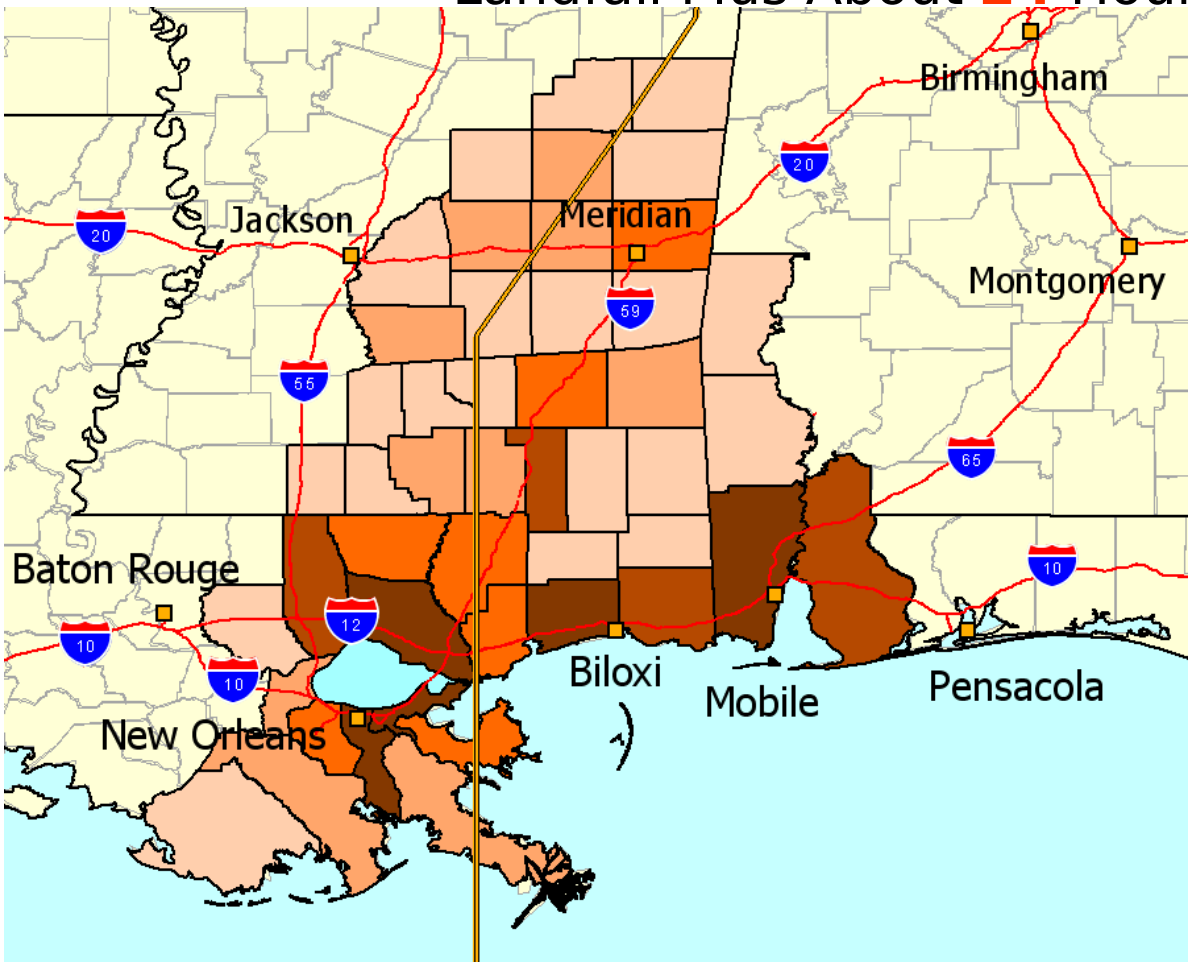
Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Households Model

Landfall Plus About **24** Hours

For Official Use Only!



Most Probable Landfall Households Model Results

Louisiana - 524,000 households Mississippi – 360,000 households Alabama - 193,000 households

Model results per county on following page

This model is based on a Category 4 storm making landfall in near proximity to New

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The number of households included in this model output are those that would be included within estimated hurricane force winds (Census 2000 values).

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US Army Corps of Engineers

Hurricane Katrina Households Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Households Model

Landfall Plus About 24 Hours

For Official Use Only!

State	Parish	Households per Parish
	Jefferson	162,000
	Lafourche	14,000
	Livingston	1,000
	Orleans	178,000
	Plaquemines	8,000
	St Bernard	25,000
	St Charles	16,000
	St John Baptist	13,000
	St Tammany	63,000
	Tangipahoa	26,000
	Terrebonne	3,000
	Washington	15,000
Louisiana		**524,000**

State	County	Households per County
	Baldwin	38,000
	Choctaw	1,000
	Mobile	150,000
	Washington	4,000
Alabama		**193,000**

State	County	Households per County
	Clarke	6,000
	Covington	7,000
	Forrest	27,000
	George	7,000
	Greene	4,000
	Hancock	17,000
	Harrison	71,000
	Jackson	49,000
	Jasper	7,000
	Jeff'n Davis	5,000
	Jones	24,000
	Kemper	2,000
	Lamar	14,000
	Lauderdale	21,000
	Lawrence	2,000
	Leake	1,000
	Marion	9,000
	Neshoba	10,000
	Newton	8,000
	Noxubee	3,000
	Pearl River	18,000
	Perry	4,000
	Pike	1,000
	Rankin	2,000
	Scott	9,000
	Simpson	8,000
	Smith	6,000
	Stone	5,000
	Walthall	4,000
	Wayne	8,000
	Winston	1,000
Mississippi		**360,000**

The number of households estimated to be within hurricane force winds comes from Census 2000 values.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

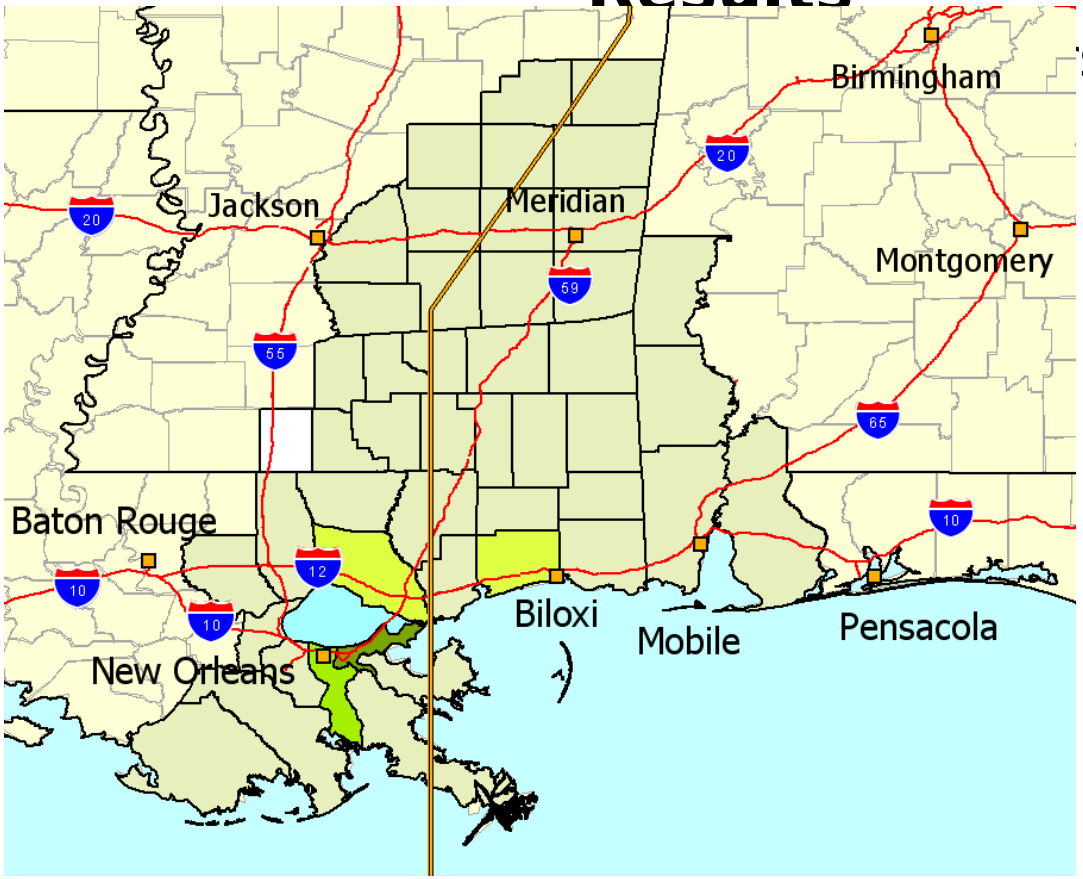
Hurricane Katrina Households Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Roofing Model Results

For Official Use Only!



Most Probable Landfall Temporary Roofing Model Results

Louisiana – 18,000
Mississippi – 12,300
Alabama – 2,100

Model results per county on following page

This model is based on a Category 4 storm making landfall in near proximity to New Orleans, LA.

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC ***(0500 EDT 08/30/2005)*** historical track. The amount of temporary roofing that may be required is based on 1% of housing units damaged in CAT 1 wind area, 3% of housing units damaged in CAT 2 wind areas, 5% of housing units damaged in CAT 3 wind areas, and 7% of housing units damaged in CAT 4 wind areas. This only indicates possible need – not necessarily a mission to repair roofs.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers

Hurricane Katrina Roofing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Roofing Model Results

For Official Use Only!

Landfall Plus Abo

State	Parish	Houseunits per Parish
	Jefferson	5,400
	Lafourche	200
	Livingston	100
	Orleans	6,800
	Plaquemines	500
	St Bernard	1,300
	St Charles	200
	St John Baptist	100
	St Tammany	2,700
	Tangipahoa	300
	Terrebonne	100
	Washington	300
Louisiana		**18,000**

State	County	Houseunits per County
	Baldwin	400
	Choctaw	100
	Mobile	1,500
	Washington	100
Alabama		**2,100**

State	County	Houseunits per County
	Clarke	100
	Covington	200
	Forrest	1,100
	George	100
	Greene	100
	Hancock	1,200
	Harrison	3,400
	Jackson	1,400
	Jasper	100
	Jeff'n Davis	100
	Jones	700
	Kemper	100
	Lamar	700
	Lauderdale	200
	Lawrence	100
	Leake	100
	Marion	200
	Neshoba	100
	Newton	100
	Noxubee	100
	Pearl River	900
	Perry	100
	Pike	100
	Rankin	100
	Scott	100
	Simpson	100
	Smith	200
	Stone	200
	Walthall	100
	Wayne	100
	Winston	100
Mississippi		**12,300**

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary roofing that may be required is based on 1% of housing units damaged in CAT 1 wind areas, 3% of housing units damaged in CAT 2 wind areas, 5% of housing units damaged in CAT 3 wind areas, and 7% of housing units damaged in CAT 4 wind areas. This only indicates possible need – not necessarily a mission to repair roofs.

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US Army Corps of Engineers

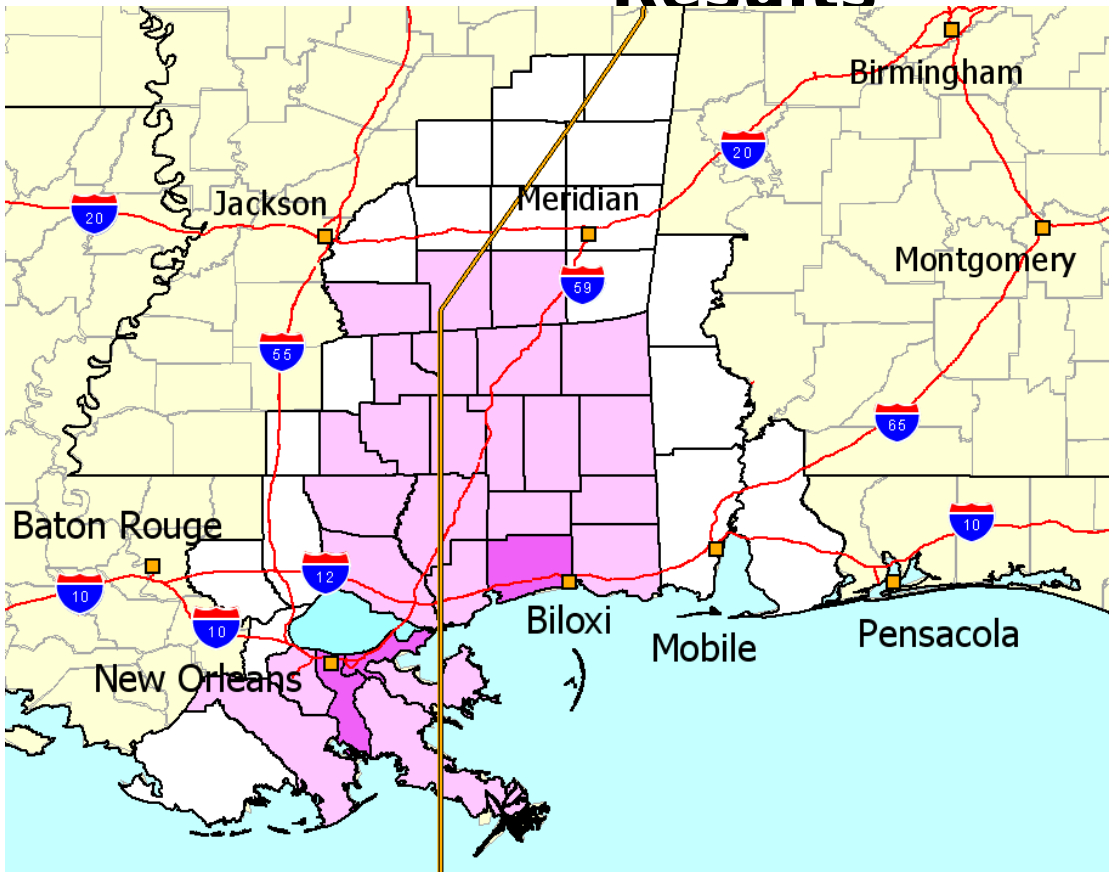
Hurricane Katrina Roofing Model

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Housing Model Results

For Official Use Only!



Most Probable Landfall Temporary Housing Model Results

Louisiana – 9,300
Mississippi – 7,600
Alabama – 400

Model results per county on following page

This model is based on a Category 4 storm making landfall in near proximity to New

Information provided on this page displays a Category 4 storm making landfall near New Orleans, LA. These projections are based on information from the NHC (***0500 EDT 08/30/2005***) historical track. The amount of temporary housing that may be required is based on no housing need in CAT 1 wind area, 1% of housing units requiring temporary replacement in CAT 2 wind areas, 3% of housing units requiring temporary replacement in CAT 3 wind areas, and 7% of housing units requiring temporary replacement in CAT 4 wind areas.

Details about this model may be obtained at https://englink.usace.army.mil or contact ENGLink at 1-877-936-4546

US Army Corps of Engineers **Hurricane Katrina Housing Model**

Generated By:
Terry Siemsen, LRL 0700 EDT 08/30/2005

Sources:
HURREVAC
LRL-DEBRIS

Hurricane Katrina Temporary Housing Model Results

Landfall Plus Abou

For Official Use Only!

State	Parish	Houseunits per Parish
	Jefferson	2,200
	Lafourche	100
	Livingston	100
	Orleans	3,300
	Plaquemines	400
	St Bernard	800
	St Charles	100
	St John Baptist	100
	St Tammany	1,900
	Tangipahoa	100
	Terrebonne	100
	Washington	100
Louisiana		**9,300**

State	County	Houseunits per County
	Baldwin	100
	Choctaw	100
	Mobile	100
	Washington	100
Alabama		**400**

State	County	Houseunits per County
	Clarke	100
	Covington	100
	Forrest	500
	George	100
	Greene	100
	Hancock	1,100
	Harrison	2,100
	Jackson	400
	Jasper	100
	Jeff'n Davis	100
	Jones	200
	Kemper	100
	Lamar	400
	Lauderdale	100
	Lawrence	100
	Leake	100
	Marion	100
	Neshoba	100
	Newton	100
	Noxubee	100
	Pearl River	500
	Perry	100
	Pike	100
	Rankin	100
	Scott	100
	Simpson	100
	Smith	100
	Stone	100
	Walthall	100
	Wayne	100
	Winston	100
Mississippi		**7,600**

THIS IS AN EXPERIMENTAL MODEL !! THE VALUES ARE PRELIMINARY AND SHOULD BE CONSIDERED A GUIDE BUT NOT AN ABSOLUTE VALUE !!

The amount of temporary housing that may be required is based on no housing need in CAT 1 wind areas, 1% of housing units requiring replacement in CAT 2 wind areas, 3% of housing units requiring replacement in CAT 3 wind areas, and 7% of housing units requiring replacement in CAT 4 wind areas.

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